

Delafield (Ed)

.7

25

# INTRODUCTORY ADDRESS

TO THE

STUDENTS IN MEDICINE

OF THE

COLLEGE OF PHYSICIANS AND SURGEONS

OF THE

UNIVERSITY

OF THE STATE OF NEW-YORK.

box 3.

Delivered Nov. 7, 1837.

BY EDWARD DELAFIELD, M. D.,

PROFESSOR OF OBSTETRICS, AND THE DISEASES OF WOMEN AND CHILDREN.

LIBRARY  
142/14  
NEW-YORK:

PUBLISHED BY THE STUDENTS.

1837.

NEW-YORK:  
Printed by SCATCHERD & ADAMS,  
No. 33 Gold Street.

COLLEGE OF PHYSICIANS AND SURGEONS.

NEW-YORK, *November 10th*, 1837.

SIR,

At a meeting of the students of this college, held on the 9th inst. it was unanimously resolved that a committee of five, with the addition of the chairman and secretary, be appointed respectfully to request a copy of your very able and appropriate introductory address, for publication. Believing that it points out a course of study which, if diligently pursued, will not only guide the student to eminence in his profession, but will also tend to elevate and add dignity to that profession to which we intend to devote our lives, and at the head of which your talents and assiduity have deservedly placed you,—

We, a committee appointed for this purpose, take great pleasure in joining our fellow-students in this request.

We are, Sir,

Yours, with much respect,

W. DE S. BOWEN,	} <i>Committee.</i>
T. M. HALSTEAD,	
WM. COCKCROFT,	
H. D. PAINE,	
T. F. COCK,	
WM. G. EADIE, <i>Chairman</i> ,	
T. M. MARKOE, <i>Secretary.</i>	

TO PROFESSOR EDWARD DELAFIELD.

GENTLEMEN,

THE Lecture, a copy of which you have done me the honor to request for publication, was not intended for any greater degree of publicity than it has already received. A treatise on Medical Education can by no means be compressed within the limits of an introductory discourse, if it aim at giving a complete view of this important subject. In complying with your wishes, then, gentlemen, I do so, not because I think the lecture worthy of your acceptance, but that I may not appear ungrateful for the kindness which dictated your flattering request. With the highest interest in your welfare, and that of the class you represent,

I am, Gentlemen,

Your obedient Servant,

EDWARD DELAFIELD.

NO. 9 WARREN STREET, *Nov. 10th*, 1837.

TO MESSRS. W. DE S. BOWEN,	} <i>Committee.</i>
T. M. HALSTEAD,	
WM. COCKCROFT,	
H. D. PAINE,	
T. F. COCK,	
WM. G. EADIE, <i>Chairman</i> ,	
T. M. MARKOE, <i>Secretary.</i>	



INTRODUCTORY LECTURE

ON

MEDICAL EDUCATION.

GENTLEMEN,

YOU are assembled here with one common object,—the acquisition of medical knowledge. By the possession of this knowledge, you hope to be enabled, at a future day, to practise with success one of the most honorable and useful professions ; to acquire to yourselves reputation ; to gain rank in society and consideration among your fellow-citizens ; it may be, to obtain wealth, or at least a comfortable subsistence ; and, above all, to relieve human suffering and prolong human life.

Many of you are only now beginning your professional studies, and to such especially I would address myself. Have you sufficiently reflected upon the necessity of pursuing a *right method* in your medical education ? It is to be feared that there is not among us sufficient pains taken to pursue the study of medi-

cine in such an *order* as to acquire the greatest amount of knowledge with the least waste of time. It is probable that many students do not take from those more experienced than themselves proper direction on this subject ; and that they allow accident and circumstances to regulate what should be the result of pre-determined order and method. There may be some among you who engage in your studies somewhat like the visiter to a great library, who, without catalogue and without guide, takes at random books from the shelves ; and expects by their perusal to become a learned man.

It must be acknowledged that there is generally, in this country, a want of system in medical education ; and it is almost to be desired that the subject should be distinctly taught by a separate teacher, as in several of the German universities, where Professorships exist devoted to this object, in connexion with medical Bibliography.

The most striking defect in medical education, as pursued among us, is the shortness of the time devoted to it. I believe in no State of the Union is a term of more than three years' medical study required, and in some only two years. At the early age of twenty-one, and after this brief period of study, do a large number of gentlemen every year present them-

selves as candidates for public favor in the practice of medicine.

This proneness to premature efforts in the business of life is peculiar to our country in every avocation and profession ; and in each and every one, more or less injury to individuals is the result. But especially in our profession, where human life is constantly placed in our hands ; and where upon our knowledge and skill depends the amount of pain and suffering which is to be endured by those who call upon us for professional aid, is incompetent knowledge most to be deprecated. And it is hazarding little to say, that in this short time very few, if any, young men can render themselves so far masters of their profession, as to practise it with any degree of confidence or success.

Nor is any thing gained by those who thus early come forward. All experience has proved that men who do not thus early rush forward into life half prepared, but are content patiently and diligently to apply themselves as students for a longer period, succeed more completely in the end ; and that at the age of thirty, the physician, who commenced his career at twenty-five, will be in advance of him who began at twenty-one.

Be not content, then, with merely that amount of

medical knowledge which the law requires. Recollect that the possession of a medical diploma does not imbue its holder with medical knowledge ; and that the mere fact of having complied with the requisitions of law, and obtained a license to practise, does not prove to your friends, and those whose patronage you seek, that you are to be trusted in the management of their diseases.

It is true that none of us can cease to be students in fact, when the period of our pupilage is completed. We must all, while in actual practice, learn by constant observation and experience what we can acquire in no other way ; but it is equally certain there are many things, which, if you do not acquire *now*, you will never again have an opportunity of learning. Of some you may now become completely masters ; and in default of present study, you will always remain in ignorance of them ; while of others you can only acquire the outline and principle. You may make a sketch, which at a future period, and by careful observation and study, you may fill up.

Where again, in after-life, will you have opportunities of learning Anatomy and Physiology by actual demonstrations and dissections ? If you do not, as *students*, make yourselves well acquainted with the healthy structure and functions of the human body,



is it probable that you will ever be thoroughly instructed in these most essential branches of our science? And if these, the foundation of all medical knowledge, be imperfectly known, how can you raise the superstructure of practical science, which is to enable you hereafter to fulfil the duties of your profession? And in Morbid Anatomy, you now have an opportunity, afforded by extensive collections of preparations showing the effect of disease upon the human body, the result of the labor of years in their accumulation, to become well acquainted with this most instructive subject. If, then, you do not now avail yourselves of these opportunities, how, at any future time, in the midst of practice, and perhaps in situations far distant from schools of medicine, will you acquire this knowledge?

Use then, gentlemen, diligently the time and opportunities which now present themselves; and in proportion as you do so, will you find straight and easy the path of science in which you intend to walk.

In enumerating the different branches of knowledge which the accomplished physician ought to possess, if we were to omit nothing, there is hardly any department, either of science or literature, which might not be placed in the list. It is not uncommon,

upon occasions like the present, for men of every profession to exaggerate the amount of preparatory study necessary for those who intend to engage in its practice ; and such an array of science is sometimes brought forward as essential to be learned, as is sufficient to intimidate those who are commencing their course of study. And, indeed, it is true that the physician must have a certain degree of acquaintance with a great variety of subjects. But it is not possible, nor is it necessary, that each one should be pursued to its utmost extent, as if that alone were to be the business of our lives. It is acknowledged, on all hands, that Anatomy is essential to every physician ; but how far must it be studied ? Haller estimated the time necessary for the acquisition of this science at *twenty years* of one's life ; and no one better than Haller could judge what is necessary for an Anatomist.\* Nobody would pretend, that to become a good physician or surgeon, we must study Anatomy in this manner. We all know, that without a knowledge of *Chemistry* we cannot understand the nature or proper mode of preparing and administering the various articles of the *Materia Medica* ; and yet to become masters of this science, many men devote their lives,

\* Dr. Latham, Med. Gazette. Vol. XIII. page 344.

and find all their time none too much for what they would learn.

It is not thus that the student of medicine must study. He must not become an enthusiast in the pursuit of any of the sciences which are only subsidiary to the profession. He must give each its just and proper degree of attention ; not allowing himself to be diverted, by excessive fondness for any one of them, from the more essential pursuits which bear upon the practice of the profession. All experience has shown that this kind of indulgence is sure to prevent success in the practice of medicine. He who devotes the largest portion of his time to chemistry, or to geology, botany, or any other branch of natural history, is in imminent danger of being led away from the more direct objects of a physician's pursuit.

It is not so, however, with those branches of our science which are more immediately connected with practice. In acquiring these, it is desirable that we should have enthusiasm. There must be zeal, there must be ardour, in pursuing our studies, as they conduce to the one great object of making us good physicians ; and the more completely the pursuit of professional knowledge becomes a *passion*, the more certainly we arrive at great success in its acquisition.

With this view, it has always been found most desirable for every student, after he has acquired a good general knowledge of the whole subject, to attach himself to one particular department of medicine, in which he will aim at acquiring especial skill and especial eminence. It is impossible for any one man to become thoroughly master of every subject in medicine and surgery; and those who attempt all equally, arrive at no remarkable success in any. They may become respectable practitioners of physic, but will never reach the first rank of the profession. The majority of students, whatever may be their pursuits eventually, are, in the first instance, so much captivated by the showiness of surgical operations, and carried away by the reputation which uniformly follows great skill in these operations, that they devote themselves too exclusively to this subject. But when you look around this great city, and observe how small a number of our profession have acquired great reputation in operative surgery, and how large a mass are daily engaged in the treatment of diseases requiring no operation, you will easily discover that this field can be occupied by a very small number. But if every medical man cannot become a great surgeon, he can at least make himself master of some one department of his profession; and the skill

he will acquire in this branch, by enabling him occasionally to effect cures in cases where others fail, cannot but give him a reputation which will extend to every other part of his employment. It is in this way, too, that you may hope to *improve* as well as *practise* your profession; that you may more thoroughly ascertain the nature of certain diseases, and devise more successful modes of treatment than those who have preceded you : and thus, by your writings, may acquire fame which will endure after yourselves have passed away. Inquire into the history of eminent medical men of every age and country, and you will generally find that some one subject, at least at first, had engaged them more than all the rest; and that to a remarkable skill in treating one class of diseases, has much of their general reputation been attributable.

Not, however, that I would urge you, in pursuing one branch of medicine, to neglect the rest. The mere practitioner in a single class of diseases is very apt to degenerate into the charlatan. We cannot treat any one disease well, unless we are generally acquainted with the other maladies to which the human body is subject : and the history of medicine has fully shown, that little has been done for our science by those who practise single branches to the exclu-

sion of all the rest. The connexion between the different parts of the human body is too intimate, and the symptoms of many diseases too varied and multi-form, to allow us to understand any one exclusively. Become, then, good general practitioners, so as to be prepared for any emergency in which you may be placed; but in some one department, be especially strong. Let this be your favorite pursuit; the one in which you will *endeavour*, at least, to excel all others; and if you do not attain this result, you may at least be behind few.

In pursuance of this object there is no means better calculated to ensure its attainment, than to prepare yourselves to become teachers of the branch of medicine to which you attach yourselves. You cannot be more usefully employed, when you have finished your course as students of medicine, than in preparing lectures on some medical subject; and even if these lectures are never heard by an audience, the labor you have bestowed upon them will be abundantly repaid by the more accurate and extensive knowledge you will have acquired. It is, indeed, much to be desired, that a greater number of private courses of lectures should be given in this city. The number of those who in this way prepare themselves for becoming public teachers is by no means great;



while the demand for them in the constantly forming new medical schools, is incessant; and to the cities especially are inquiries directed for filling such places.

Having made these general remarks upon the modes of acquiring professional knowledge, let me next direct your attention to the different subjects you must learn, and the proper order for pursuing their study.

The preliminary education of students of medicine is of no small importance; and, in consequence of deficiency here, may too many industrious pupils find themselves constantly impeded in their more immediately professional studies. It is highly desirable that every student, before he commences the study of medicine, should have obtained, at least, the amount of knowledge which is usually taught in our colleges. But it need be no discouragement to those who have not had this advantage; if they will still make the best use of their time, and not be too anxious early to enter the profession. They may, in fact, acquire all that is most essential, even while they are pursuing the study of medicine; and by greater diligence, acquire as much, and often more, than those who have had superior advantages. The amount of knowledge we may gain on any one sub-

ject, by severe application for even a very small portion of each day, is almost incalculable ; and if you will make the experiment, you will find that, without neglecting your professional studies, you may still make up for any deficiency in your previous education.

Of these preliminary studies, the classical languages are among the first to engage the student's attention. Without a competent knowledge, at least of Latin, no physician can make any pretensions to learning in his profession. It is the universal language of science, from which are taken most of the technical terms and phrases which are commonly employed in medicine. It is the medium through which, even still, those who would write for the whole world, and not merely for their own nation, convey to the learned of other countries their improvements and discoveries in science. It is true that we have all known good and excellent physicians who knew nothing of Latin or Greek ; but we have never known one such who did not most deeply regret his ignorance of these languages, and constantly feel it a clog and impediment in prosecuting his medical studies.

I need not spend much time in dwelling upon the advantage of understanding also several modern



languages. French is now so common, that no man is considered as well-educated without it; and a physician who cannot at least read this language, is cut off from the perusal of many of the most valuable works on medicine and surgery which have been written.

Next to French, it is desirable also to learn the German language. No nation is in advance of Germany in all knowledge, directly or indirectly connected with medicine; and in no language are there published so many valuable works of our science. Add to this the extraordinary industry of German authors in collecting together every thing which is published in other languages, and immediately translating it into their own; and we perceive that it is thus made an almost universal medium in which may be found the science of all the rest of the world.

But the study of languages, both ancient and modern, should not be recommended on the ground of immediate utility alone. "Not only are these accomplishments required for the full understanding of the matters proper to our science; they elevate, also, and dignify its character—throw a grace and charm around its pursuit, and by exercising the mental faculties, invigorate them for the more ready apprehension of the truth."\*

\* Dr. Watson, *Med. Gazette*. Vol. XIII. page 3.

It would hardly appear necessary to urge upon those who are studying a liberal profession, that while they are devoting time and labor to the acquisition of foreign languages, both ancient and modern, they should not neglect their own mother tongue. But it is to be feared there are few subjects which less engage the attention of students of medicine. Of this the Professors of a medical college have ample means of judging, and but too often, in examining the writings of those whom they instruct, are mortified to observe a degree of carelessness, not to say ignorance in composition, which is unpardonable. I would not dwell upon this subject. Arguments are not necessary to show the necessity and advantage of knowing how to employ our own language correctly, if not elegantly. The public always expects from a medical man who aspires to any degree of eminence, a considerable share of learning, and is especially indisposed to pardon any palpable ignorance of his own language.

As preparatory to the study of medicine, it is essential that a certain amount of knowledge of *natural philosophy* be attained ; and it is desirable that this knowledge should precede that which is more strictly professional. Without it, it is impossible for the student to comprehend the language which is con-

stantly employed in explaining the phenomena of chemistry, of anatomy, and of physiology. How can he understand the action of the muscular system, or the no less remarkable wisdom displayed in the human skeleton—the frame-work of the body—without some knowledge of *mechanics*; the functions of the lungs, heart and blood-vessels, without that of *pneumatics* and *hydrostatics*; the structure and uses of the eye, unless he know the truths taught by the science of *optics*. We may, it is true, treat the diseases of all these parts without any knowledge of physics; but we must treat them, to a certain extent, empirically, and without well understanding what we do. And we can go no farther. If we confine our studies to merely what is absolutely essential to make us practitioners of medicine, we must be content to take our science as we find it, without any prospect of adding, by our own observations and reasoning, any thing to the common stock committed to us along with our contemporaries.

Nor, for similar reasons, can we dispense with some knowledge of *Natural History*; of Mineralogy, Botany and Zoology, the sciences which teach us the structure and properties of the three great classes of material substances, as they exhibit themselves in the Mineral, Vegetable, and Animal kingdoms of na-

ture. From all these are the substances derived which go to form the *Materia Medica*, but especially is Botany essential to the physician, as by far the largest number of these substances are of vegetable origin.

The *Fine Arts* may be made subsidiary to our profession. The physician who is so fortunate as to have a talent for *drawing*, may consider himself the possessor of a most valuable gift, and should never fail to cultivate it. But, even without any decided bent for this beautiful accomplishment, you may all acquire sufficient skill to copy valuable drawings or plates, which you may not have the means of purchasing; or still more usefully to delineate the appearances of disease, as you may find them in patients during life, or in examining their bodies after death. Not a few of the most valuable works we possess in every department of medicine are illustrated by drawings executed by their authors; and no other artist can make such drawings so well for these purposes, as he who fully understands the structure or the disease which he intends to delineate.

Such are the principal branches of education which should be preliminary to the study of medicine; and, numerous as they may appear, when thus collected

together, every one of you, gentlemen, has had ample time to have acquired them, if you have employed that time to the best advantage. Not that I would discourage those who have not had the means of obtaining such an education ; or, having the advantages, have not improved them. You cannot make up for all the time you have lost ; but you may accomplish much by using what remains. Nor is all this knowledge absolutely essential. With it, you will pursue your professional education with comparative ease and rapidity. Without it, you may still become good physicians, and even attain a high rank in the profession ; but you will take each step, as you advance in knowledge, with more labor and difficulty ; and you cannot add the reputation of learning to that of usefulness.

Let me next call your attention to the more strictly professional studies, which you are here assembled to commence or continue. Of these, of course, the ground-work is *Anatomy*. It is hardly necessary to say to you, that with this you must begin. Before you understand the structure of the human body, you cannot possibly comprehend its diseases ; and you cannot too minutely investigate and learn every part of this beautiful and complicated machine. Lectures on *Descriptive Anatomy* afford the easiest and



best method of gaining a general idea of the human body ; and these must first receive your attention. But Anatomy cannot be learned either from Lectures or Books alone. It is alone by Dissections ; by examining for yourselves each particular part of the body ; by patiently and carefully separating each part from these around it, and thus learning its exact position and relation to all the rest, as well as its more minute structure ; it is alone by slowly and laboriously pursuing this method of inquiry that you can ever become anatomists.

It would hardly seem necessary to prove the value of dissections to the students of medicine ; nor would any one have the hardihood to deny the absolute necessity of this pursuit both to the physician and surgeon. And yet, practically, it is denied, and that by a very large number of those who are every year entering our profession. Where do the students, who attend medical lectures, in small towns in the interior, obtain the means of dissection. It is notorious that they have them not at all ; and yet such schools do exist in every part of this section of the Union, where Anatomy is attempted to be taught merely through the medium of the eyes and ears, by Lectures and Demonstrations. And still worse is it a notorious fact, and especially in our own State, that

great numbers become legal practitioners without attending a single medical lecture ; not only without having dissected human bodies themselves, but without ever having seen these dissections made by others. This is the result of the very imperfect medical laws of this state. Every medical society in the state, and they are as numerous as the counties, has the same legal right to grant a license to practise physic as the colleges ; and to obtain this license, the student is not required to attend a single medical lecture, nor to have dissected a single human body. And such licenses are granted in numbers, and the state is thus filled with practitioners of medicine utterly unfit for their professional duties.

But to return to the subject of medical studies. A knowledge of anatomy is incomplete without that of Physiology. By the one you learn the structure, by the other you ascertain the functions of the different parts of the human body ; and in pursuing the interesting inquiries in which this last is constantly engaged, you are abundantly compensated for the more dry and laborious pursuit of descriptive Anatomy.

Along with Anatomy and Physiology, one of your earliest pursuits must be the study of Chemistry. By its means we learn the ultimate constitution of

the different substances, of which our bodies consist : that of the different substances, which have relation to, or act upon these bodies ; and the changes and results produced by these actions. By Chemistry, too, we learn the nature of the various medicines we employ for the cure of diseases, and the mode of preparing them. By its aid, we know how to combine these medicines without destroying their effects by mutual decomposition ; we judge of their purity, and detect the adulterations so frequently made in them. By means of Chemistry, new principles are detected in various substances, which prove most valuable medicines ; and of those long used, and of well ascertained value, the active parts are distinguished and separated, while the useless and more bulky ones are rejected. Chemistry, then, is indispensable to us, and a knowledge of its truths must be early acquired. It is one of the subjects which must first engage the attention of the student of medicine.

The first *practical* branch which it is necessary to learn is *Surgery* ; and its study may be advantageously commenced at the same time with those we have already mentioned. The principles of Surgery lie at the foundation of all medicine, and they are comparatively few and more simple than those of the practice of physic. Without a knowledge of



surgery, we can never become physicians ; and even although we may never intend to practise it, we must become well acquainted with the one, to give us a full understanding of the other. In dwelling upon the necessity of surgery to the physician, Sir Astley Cooper always used to point to the example of Dr. Baillie, who held the very first rank of the physicians of his day. This distinguished man was educated for a surgeon, and began the practice of this branch exclusively. It was only afterwards that he gave his attention to medicine, and gradually became so much engaged in it, that he gave up surgery entirely, and, practising solely as a physician, gained the high reputation, which ceased not with his life.

Along with an attendance upon Lectures on Surgery, the students cannot too soon begin to observe its practice ; and indeed the same remark is equally applicable to medicine. For this he can be at no loss for opportunities, with the Hospital, Infirmaries and Dispensaries always open to him ; besides the frequent occasions in the private practice of their seniors, of which attentive pupils can always avail themselves. He should make himself, at the very outset of his studies, familiar with diseases and their modes of cure ; for the very same reason that many teachers of modern languages make their pupils learn

words and phrases before they teach them grammar. By this means he will the more easily understand the pathological principles which he hears in the lecture room ; and what he hears, will afford him much more interest. How, if he pursue a different course, will he comprehend the theory of inflammation or suppuration, if he have never seen a phlegmon or an abscess ? How little impression will be made upon his understanding by the most accurate account of the varieties of the pulse, if he have never himself felt the pulse of the sick.

For similar reasons, the student should immediately avail himself of every opportunity of performing all the minor operations, and the many offices about the the sick which are incessantly recurring in ordinary practice. He should know how to do all these things himself, even although in after-life he may only have to direct them to be done by others. He should know how to bleed, to apply leeches or cupping glasses, to make an issue or a seton, apply and dress a blister or a sinapism ; and so of numerous other of the more common and simple duties of those who minister to the sick. These things cannot be done too often nor begun too early ; for, simple as many of them are, they are never done perfectly well by him who has not done them frequently. In performing

them, habits of neatness and accuracy should be cultivated; for upon attention to these things does the comfort of many a patient depend. A clumsy operator will cover his patient with blood in the common operation of opening a vein, while a skilful one will hardly let fall a drop. And so of all the rest.

The subjects which I have thus far enumerated, are abundantly sufficient to occupy the student during his first year; and those who will have an opportunity of attending lectures for several successive winters, will do well to confine themselves to these subjects during their first course of Lectures.

The precise order in which other branches are taken up is not so material as that of those I have thus far spoken of. One of the next to be learned is *Materia Medica*. This science treats of the *properties* of the various agents we employ in the treatment of diseases; the art of *pharmacy*, by which they are obtained from their various sources in nature, and prepared for administration; and *therapeutics*, which explains their modes of action on the living body. Its importance and direct application to practice is sufficiently obvious. And here, too, the student will do well to use every means of gaining knowledge by his own experience. He cannot too soon engage in preparing medicines for administration. He thus becomes

familiar with the substances he is afterwards to prescribe; he learns the modes of detecting their adulterations and impurities; and he employs the very best method of ascertaining and fixing in his memory their doses. There is no part of the education of students of medicine more neglected than this; and I believe it is not very uncommon for gentlemen to graduate, who have never prepared a dose of medicine, nor seen, except in the Lecture Room, half of the more common substances employed as remedies. It is, on this account, almost to be regretted, that the old practice, in this city, of physicians dispensing their own medicines, has fallen into disuse. Their pupils lose an advantage which they can in no other way obtain. I have always felt that the time which I spent, when a student, in preparing the medicines for the patients of my instructor, was as usefully employed as any which was devoted to my medical education.

The Theory and Practice of Physic, and Obstetric Medicine, are the subjects next in order in the studies of the diligent pupil. By these he is introduced to what is to be the business of his life. It is no longer preliminary study, or subsidiary branches of knowledge, which must engage his attention; but it is the direct management of disease which he is now

to learn ; and he will not find that all the time that he can devote to them, will be more than sufficient to give him the knowledge he requires.

As a means of illustrating what is learned on the nature and effects of disease in the human body, it is indispensable that a fair portion of time be devoted to the study of *Morbid Anatomy*. It is not sufficient to be well acquainted with the healthy structure of every part of the human body. We must also learn their appearances after they have suffered from disease. It is evident, that until we have been well instructed in the former of these branches of knowledge, we can never make progress in the latter ; or, in other words, until we are quite familiar with the natural appearances of every part of the body we are examining, we cannot judge of what is preternatural. Certain changes take place after death as a mere consequence of dissolution, and independently of any previous disease ; and in not a few instances have these changes been mistaken for morbid appearances. In studying *Morbid Anatomy*, then, we must understand, first, the healthy structure of parts ; secondly, the changes which occur spontaneously in the body after death ; and lastly, the effects of disease. And, still farther ; in examining appearances evidently morbid, we must distinguish between those



which essentially belong to the disease of which the patient died, originating with it ; and others which may be termed incidental, and the mere result of long-continued morbid action going on in the system. By mistaking the latter for the essential appearances belonging to the disease which destroyed the patient, we may err widely in reasoning on his case. This science then is by no means easy of attainment, and even with the valuable aid to be derived from Lectures and preparations, will require careful study for its acquisition. Neither student nor practitioner should ever cease to pursue it, and should omit no opportunity of examining bodies whenever they occur. And such opportunities will, if sought for, prove more frequent than is generally imagined. Abhorrent as is the mutilation of the human body to the feelings of every surviving friend, you will find few who will resist an appeal to their reason and good sense in cases where an autopsic examination is, from any cause, deemed desirable. Even among people of the least education, I have rarely had such opportunities refused ; and from my own experience, I can assure you that you never need hesitate in any case to ask such permission, and it will very rarely be denied.

It is not until each of the branches to which I have

alluded has been in a good degree acquired, that a student is prepared to comprehend the science of *Forensic Medicine*; and he would therefore do well to reserve any very close attention to this subject to the later periods of his studies. Its objects are to teach us the application of medical knowledge to various questions in law, which are incessantly occurring in civilized society; and it pre-supposes an acquaintance with every branch of our science. Its importance is now so generally conceded, that I need not dwell upon it; and I feel myself the less called upon to do so, when I recollect that from this college, and its associate in the State University, has emanated the best work on Legal Medicine which is found in our language.\*

These, gentlemen, are the several elementary branches of medical science which it is our province to teach and your business to learn. But you must not suppose, that even after you have diligently attended lectures on each of these subjects, and carefully read numerous works relating to them, you are thereby prepared successfully to practise medicine, and to combat disease in all the protean varieties in which you may one day expect to meet with it.

\* Elements of Medical Jurisprudence, by Theodrick Romeyn Beck, M. D., and John B. Beck, M. D.

You must not only have all this knowledge, but you must know how to use it; and you will find in your future acquaintance with medical men, that it is not always he who possesses the most medical knowledge, who can avail himself of it to the best advantage. Indeed, you will meet with not a few instances to prove to you, that one man, with a very small amount of knowledge, may *use* it,—may *apply* it to so much better advantage, than another who far excels him in science, as to render him the most really useful practitioner.

Difficult, then, as is the acquisition of learning, its application will prove more so; and unless we employ every means of acquiring the one, the other will prove of little value to us. This power is to be gained by using every opportunity of employing the knowledge we have obtained at the bedside of the sick. Your first experiments in examining disease, will be little satisfactory to you; and your very ill success will prove to you how much you must observe for yourselves, in order to distinguish between diseases, as you will meet with them in real life, not in lectures nor in books. It is this which makes attendance at Hospitals and Infirmarys an essential part of medical education; and it is a matter of congratulation to you all, that you will no where meet



with a better hospital than that of this city. It is this which makes Clinical Lectures within the walls of an hospital so valuable; and whether these Lectures are given in form in a theatre, or whether they consist in familiar remark at the bedside itself, they are of importance second to nothing else that you will be taught. You will have the advantage of both these modes of instruction; and if you use these advantages as zealously as they deserve, it will depend upon yourselves alone, whether or not you become useful and skilful practitioners as well as learned physicians. I have advised you, at the very outset of your medical studies, to familiarize yourselves with disease and its modes of treatment; and I cannot do better than to repeat the same advice as to the last subject which should engage you while you are still only students. At first you will not be prepared to understand Clinical Lectures; but you may constantly gain information by frequenting the wards of an Hospital; while, later in your pupilage, you will find these Lectures admirably to illustrate all that you have been previously taught. They will prove to be the best possible means of preparing you for engaging yourselves in the treatment of disease.

There are also particular branches of Medicine and

Surgery, which, if we would become masters of them, require more minute attention than is afforded in ordinary systematic lectures and at general hospitals. Diseases of the Eye, of the Ear, the Lungs, the Skin, and several others, are now taught and studied as distinct branches of medical science; and ample opportunities are afforded in this city for their prosecution. The New-York Eye Infirmary, with its 1200 patients a year, gives abundant means of observing every variety of disease to which the eye and ear are subject. It has now been established nearly twenty years, and its usefulness, in teaching as well as treating disease, is fully acknowledged. More recently institutions have appeared for treating Diseases of the Lungs and the Skin; and courses of Lectures have been given on these subjects; and it is much to be desired that those who are thus engaged should persevere in objects by which they will not only advance their own reputation, but do vast good by relieving the sufferings and diseases of the poor, and instructing the younger members of their own profession.

Having thus, gentlemen, passed in rapid review the several subjects which must engage you as students of medicine, and pointed out the order in which you should take them up, let me close these remarks

by calling your attention for a moment to the department of medicine which it is my duty to teach in the ensuing course of Lectures. You will find, that to understand Midwifery, and the treatment of the Diseases of Women and Children, you can dispense with no part of the knowledge which I have declared essential to the accomplished physician. You will find that the practitioner of Midwifery requires to be equally a physician and a surgeon. If he be educated exclusively for either one or the other of these branches of the healing art, he must necessarily be incompetent to practise Midwifery. He must be a physician; for he is daily called upon to treat many of the most important, most dangerous, and most obscure diseases. He must be a surgeon; for he has operations to perform requiring all the surgeon's skill. He must have an exact knowledge of the anatomy of the parts which are the subject of operation; great dexterity, and such as is only acquired by repeated practice; great resolution and perseverance; for without these he never can accomplish obstetric operations. He must especially have remarkable presence of mind; for in no cases is he more frequently called upon than in obstetric emergencies to relieve patients from the dangers arising from sudden accidents; from situations in which death is imminent;

and when the terror and alarm of those around the patient, as well as her immediate danger, leave him entirely dependent upon his own resources.

Let us attempt to illustrate these propositions by slightly reviewing some of the cases in which the obstetric practitioner is called upon, and thus prove the necessity of a thorough knowledge of both medicine and surgery.

The practitioner of Midwifery must be a physician. His duty is to treat the diseases of women and of children. The diseases of these two classes of persons furnish, indeed, the principal source of occupation to every medical man. If any such, engaged in large practice, should keep a register of all the cases he treats in a year, he would perhaps be surprised to find how constantly he has been occupied with the care of women and children, and in how comparatively small a number of instances men become his patients. The causes acting upon the health of females, both natural and accidental; arising in the one case from the peculiarities in her constitution by which she is fitted for the great function of reproducing her species; and, in the other, from errors in education, both physical and moral, and the usages of society which more constantly are influencing the habits of the sex;—these causes are incessant in their

operation, and act in a variety of modes, which are abundantly competent to account for all the phenomena they produce.

The generative process, as far as it is performed by men, has comparatively slight influence upon their health. But in the female, its performance brings along with it a series of diseases and dangers, peculiar to the sex, which entitle her to our warmest sympathies, and the exercise of our best faculties in devising means to relieve her diseases and avert her dangers. How large a portion of the lives of most married women is devoted to the bearing of children. The long period of pregnancy, during which she often suffers from a variety of ailments, in themselves constituting a formidable list of human ills ; the process of childbirth, attended, as it always is, with intense suffering, and often with dangers of the most imminent kind ; the period of recovery from this state during which severe maladies originate, which may ever after impair the health and ruin the happiness of the poor sufferer ; and lastly, the whole period of lactation, with the cares and anxieties of the mother watching over her infant ; and perhaps worn down at last, and losing her health in the very effort her constitution makes to supply nourishment to her offspring ; how many of the best days of our mothers

are thus employed ! And when, in giving birth to a numerous progeny, these various processes are repeated again and again, is it wonderful that women are obliged so often to seek the advice and assistance of physicians.

Let any one of us inquire minutely into the condition of health of any number of females of our acquaintance. We shall find, that if we discover one individual of the weaker sex habitually free from any kind of disorder or disease, it is almost an exception to a general law : and for one such exception, we meet with numerous examples of women habitually suffering under complaints, often slight, often serious, but all more or less tending to impair the enjoyment of life.

They share with the other sex all the common diseases incident to humanity. The numerous derangements to which the digestive apparatus is subject ; the less frequent, but even more dangerous diseases incident to the lungs and other respiratory organs ; the whole list of fevers and inflammatory diseases which are every day calling upon us for relief ; all these and many others are equally shared by women with ourselves. But when, besides those already adverted to as incident to the performance of the generative function, we add the numerous class



of disorders to which they are subject from a more exquisitely organized nervous system; how largely do they bear the share of physical ills to which our race is subject. The other peculiar function of the female, menstruation, adds still more to the catalogue of diseases she has to suffer. Many young females permanently lose their health by the constitution failing in the effort to establish this function; and in after-life, its suppression or diminution, or its occurrence too frequently or in excess, all interfere more or less with the health; while the period of the cessation of the menses, although perhaps too much dreaded by women themselves, is justly regarded as often developing in the individual new and formidable diseases, peculiar to females, and to that particular epoch of their lives.

In males there is no analogous cause of disorder to the health. The age of puberty, with boys, is generally one of uninterrupted good health; and subject to none of the disorders which in the other sex are constantly exciting the solicitude of the mother and the physician. Nor at the age when the male loses the power of reproducing his species, corresponding to the cessation of the menses in the female, is there, to any remarkable extent, a peculiar proneness to disease. Indeed, in the male there is not,

as in the female, a certain age when the generative powers cease. In the latter, almost uniformly, the menses cease to appear between the fortieth and fiftieth year, and this cessation at once marks and fixes the period of the failure of the generative powers. In males it is not so. There is hardly any age which can be assumed as being the limit to the generative powers of men; and so well established is this fact, that the English laws allow no such limit during the life of the individual; while examples are well authenticated of offspring being born to fathers of an age approaching the extreme verge of the limit of human life.

Such are some of the causes operating upon the health of females to produce the numerous diseases to which they are subject; and the mere enumeration of them would abundantly illustrate the necessity of a thorough knowledge of *medicine*, of being a good *physician*, for every individual who assumes to himself the duties of a practitioner especially devoted to the treatment of their diseases.

But the practitioner of Midwifery must also be a surgeon; he must be an anatomist; he must have skill, resolution, perseverance, and presence of mind. Let any one of you, gentlemen, attempt, for the first time in your lives, in a case of labor, where the



shoulder is the presenting part, to turn the child and deliver by the feet. Let the woman have been in labor several days, the membranes broken, the uterus strongly contracted upon the body of the child; the patient resisting the efforts of the operator, and his progress constantly interrupted by the renewed throes of labor. Recollect, under all these circumstances, the value of the life which is at stake—the wife of a devoted husband, the daughter of affectionate parents, the mother of children, whose loss can never be supplied to them;—and then, without knowledge, without dexterity, without resolution, perseverance, and presence of mind, attempt the operation, and imagine the result.

Or, in another case, where the child is born, but the placenta undelivered; sudden hemorrhage occurs, and at once threatens the destruction of life within a time so short, that if a moment be lost in reflecting what is to be done, death is at hand. We see the suddenly pale and ghastly countenance, the blanched and death-like color of the lip,—we hear the almost inaudible voice uttering only the tones of delirium, and observe the restless tossing to and fro of the patient, almost ready to expire. At such a moment, imagine yourselves, gentlemen, deficient in any one of the points I have suggested, and wanting the con-

fidence in yourselves, which knowledge and skill alone can inspire ; and judge how unenviable will be your feelings.

Would that I had never seen the results of such cases when managed by the unskilful and the ignorant ; and worse even than this, the destruction of life sometimes produced by rash and barbarous attempts at effecting artificial delivery, when all assistance was entirely unnecessary, and when a mere knowledge of the powers of nature alone would have produced a happy result simply by leaving the case to itself. In witnessing such cases, I have sometimes felt that more than a doubt existed, whether most good or evil was done by the attendance of practitioners, taking them altogether, male and female, skilful and ignorant, upon cases of labor ; whether the lives of more mothers and children were lost by the want of proper assistance rendered in due time, or by improper attempts at assistance when it was not required. If women are sometimes suffered to die from loss of blood, with the placenta undelivered, or from exhaustion in labor resisted by some obstacle which the natural powers cannot overcome ; so, too, their lives are sometimes destroyed by rupture of the uterus in forcible and unskilful attempts to deliver the placenta or turn the child ;

from lacerations of the parts by instruments; or the subsequent occurrence of inflammation and sloughing from undue violence, either manual or instrumental.

But this is the dark side of the picture. Look also at the other. You are called to a case of labor protracted by some obstacle; in which the patient is almost worn out with exhaustion, and she and those around already despair of a happy result; in which hours, or even days have elapsed in unavailing struggles; and perhaps unsuccessful attempts have already been made by others to effect the delivery. You find the case within the reach of art, and, confiding in yourselves, you at once apply the appropriate remedy, and save both the mother and the child. By a dextrous application of the forceps in one case, or by means of the hand altering the position of the fœtus in another, you remove the cause of delay and finish the delivery. The sudden revulsion of feeling of the desperate patient, and the no less despairing friends; the expressions of gratitude she and they pour forth; the eloquent countenances of the husband and the mother, depicting what in language they cannot utter: these, gentlemen, are rewards which are sufficient; that will amply repay you for all the time, all the labor, all the expense you

may have bestowed in acquiring the knowledge and skill which will enable you to produce such results.

#### ERRATA.

Page 3. In the names of the Committee, for *T. M. Halstead*, read  
*T. M. Halsted*.

Page 22, line 7, for *these*, read *those*.

“ “ 13, “ *students*, read *student*.

“ “ 20, after the word *dissection* insert an interrogation (?).

25, “ 16, for *students*, read *student*.

36, “ 1, “ *and when*, read *and where*.